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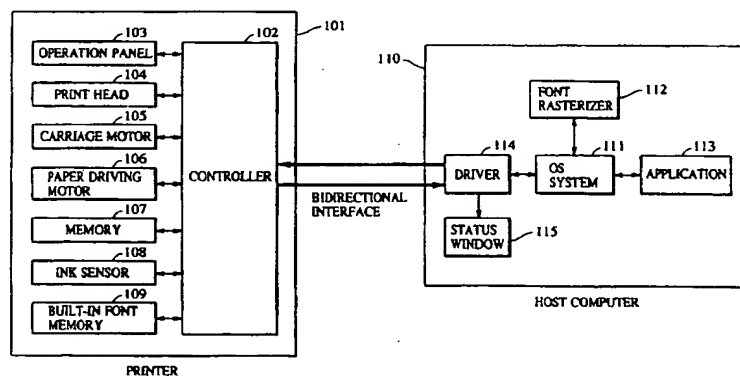
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(54) **Information processing apparatus and method for use in system with remote printer**

(57) A host computer acquires information about an amount of remaining ink of a printer. In response to the acquired information about the amount of remaining ink, the host computer displays a message on a display screen so that a user can select whether an ink car-

tridge is to be replaced with a new one or the process is to return to a previous routine without replacing the ink cartridge.

FIG. 1



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	PATENT ABSTRACTS OF JAPAN vol. 014, no. 536 (M-1052), 27 November 1990 & JP 02 227257 A (CANON INC), 10 September 1990, * abstract; figures *	1,2,4,5, 7,8,58	B41J2/17 B41J2/175
Y	---	2-4,6,7, 9-51, 59-62, 71-76, 84-89	
Y	US 5 068 806 A (GATTEN RONALD A) 26 November 1991 * abstract * * column 2, line 25 - line 38 * * column 4, line 59 - column 5, line 12 * * claims; figure 4 *	2-4,6,7	
A	EP 0 519 700 A (TEKTRONIX INC) 23 December 1992 * column 6, line 42 - line 52 * * column 8, line 39 - line 50 * * claim 3; figures 1,2 *	1,11,21	TECHNICAL FIELDS SEARCHED (Int.Cl.6) B41J G03G
Y	EP 0 581 531 A (CANON KK) 2 February 1994 * page 23, line 9 - line 27 * * page 9, line 30 - page 10, line 25 * * claims 1,14,22; figures 3,5,55 *	9,10,19, 20,31, 32,40, 41,50, 51,76,89	
Y	EP 0 580 433 A (CANON KK) 26 January 1994 * the whole document * * figure 11 *	9,19,31, 40,50, 76,89	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 19 June 1997	Examiner Didenot, B
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
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A	* figures 3-8,12,14,16 * ---	11,22	
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Y	PATENT ABSTRACTS OF JAPAN vol. 018, no. 192 (M-1587), 4 April 1994 & JP 06 000971 A (FUJITSU LTD), 11 January 1994, * abstract *	33-51, 61,62, 71,84	
A	US 4 422 084 A (SAITO SHIZUO) 20 December 1983 * column 9, line 26 - line 66 * * column 11, line 31 - line 49 * * claim 22; figures 4,18 *	33,42	
Y	EP 0 496 642 A (CANON KK) 29 July 1992 * claims 6,8 * * column 10, line 25 - line 33 * * figures 1,10 *	71-76, 84-89	
E	PATENT ABSTRACTS OF JAPAN vol. 096, no. 008, 30 August 1996 & JP 08 090767 A (ALPS ELECTRIC CO LTD) * abstract *	52,54, 56,57,63	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 19 June 1997	Examiner Didenot, B
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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Application Number
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A	PATENT ABSTRACTS OF JAPAN vol. 011, no. 392 (M-653), 22 December 1987 & JP 62 158049 A (CANON INC), 14 July 1987, * abstract *	52-57, 63		
A	WO 92 18335 A (EASTMAN KODAK CO) 29 October 1992 * the whole document *	52-57, 63		
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Y	EP 0 418 815 A (CANON KK) 27 March 1991 * abstract *	69, 70, 82, 83 64-68, 77-81		TECHNICAL FIELDS SEARCHED (Int.Cl.6)
A	* column 8, line 46 - column 9, line 3 * * column 9, line 49 - line 54 * * figures 4A, 4B *			
A	US 5 172 987 A (STELLMACH DIETER ET AL) 22 December 1992 * the whole document *	64, 65		
The present search report has been drawn up for all claims				
Place of search THE HAGUE		Date of completion of the search 19 June 1997	Examiner Didenot, B	
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EPO FORM 1503 03.92 (P/M COI)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid.
- namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions.

namely:

See sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid.
- namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.
- namely claims:



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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions, or groups of inventions, namely:

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|--------------------------|--------|-----------------------------|--|
| <u>Subject 1.</u> | Claims | 1-51, 58-62
71-76, 84-89 | An information processing system for controlling a printing apparatus, said system comprising acquisition means for acquiring remaining-amount information representing the amount of ink remaining in an ink cartridge. |
| <u>Subject 2.</u> | Claims | 52-57, 63 | An information processing system for outputting dot image information to a printing apparatus said system comprising comparison means for comparing a number of dots contained in the dot image information with a number of dots that can be printed. |
| <u>Subject 3.</u> | Claims | 64-70, 77-83 | An information processing system for controlling a printing apparatus, said system comprising acquisition means for acquiring information representing the distance between a print head of the printing apparatus and a printing medium. |